



Reconfigurable 22.5 & 45 Degree 3-Way Elbows, 1/2 Inch PVC Pipe Fitting Series #HalfInchPVCFittings UPDATE 2015-07-03



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updated 5. 6. 2024 | published 5. 6. 2024

Summary

Here are reconfigurable 22.5 & 45 degree 3-Way Elbows designed to fit 1/2" Schedule 40 PVC pipe.

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Here are reconfigurable 22.5 & 45 degree 3-Way Elbows designed to fit 1/2" Schedule 40 PVC pipe. They are part of a series of 1/2" PVC fittings I'm designing to supplement conventional plumbing fittings. Please check my designs for other 1/2" fittings.

These elbows can be used to make angled roofs for structures and other forms. My original purpose was a roof for a small, plastic-wrapped greenhouse to hold plants over the winter.

If you're making a roof, you might notice that each corner requires a different fitting. In order to make one design instead of four, I made the elbows reconfigurable. The 22.5 and 45 degree fittings each allow you to make 4 different elbows and 1 Y fitting. Print 1 of either the 22.5 or the 45 degree fitting, then print 2 sleeves and 2 caps. Slide the sleeves into the holes of your choice and cap the other holes. Glue for a secure fit.

I put the triangular holes in the pipes to help the glue dry. On the first iteration, I noticed that being air tight prohibited drying. The ledges on the top of the horizontal holes make it printable without support structures.

I will continue to add new fittings to the series and share them as a derivative of my original 3-Way Elbow. Please let me know if there is a fitting you need that I haven't created yet.

You are highly encouraged to make new derivatives. Please tag your new creations with #HalfInchPVCFittings.

UPDATE 2015-07-03: I tightened the tolerances slightly for a better fit. Make sure your printer is well calibrated before printing.

Update 2014-11-11: For a more elegant solution that uses less plastic, try out my new adjustable angle 3-way elbow in my designs.

This remix is based on



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by [tonyyoungblood](#)

Model files



cap.stl

cap.skp



sleeve.stl

3way45.skp



3way45.stl

sleeve.skp

3way22.skp



3way22.stl

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com)

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